

# Work Order ID 66127

Monday, February 07, 2011 10:53:02 AM



Page 1

Item ID: D3500-1

Accept



Setup Start



Revision ID:

Item Name: Saddle

Stop



Start Date: 2/8/2011 Start Qty: 12.00



Cust Item ID:

Required Date: 2/22/2011 Req'd Qty: 12.00

Customer:

Reference:

Approvals:

Process Plan:

*MF*

Date: 11-02-07

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr

100

0.00



HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

Program Batch No. 66127 Double check by: ☐ 1-Machine Step No 1  
per Folio FA641 and inspect per attached Dimension Sheets ☐ 2-Machine Step  
No 2 per Folio FA641 and inspect per attached Dimension Sheets ☐ 3-Machine  
Step No 3 per Folio FA641 and inspect p

*SL 11/04/11*

⑨

110

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

*SL 11/04/11*

⑨

120

0.00



QC8- Inspect parts - second check

QC

Memo

0.00

Quality Control

*G.A 11/04/12*

9

φ

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			



**NOTE:** Date & initial all entries




# Work Order ID 66127

Monday, February 07, 2011 10:53:02 AM

Page 2

Item ID:	D3500-1	Accept		Setup	Start	
Revision ID:					Stop	
Item Name:	Saddle					
Start Date:	2/8/2011	Start Qty:	12.00		Cust Item ID:	
Required Date:	2/22/2011	Req'd Qty:	12.00		Customer:	
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130  HandFinish	Chemical Conversion Coat per QSI005 4.1	0.00				9	0	M 11/04/12	
Hand Finishing	Memo	0.00							
140  Powdercoat	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00				9	0	BL 11-4-13	
Powder Coating	Memo	0.00							
	START TIME: 3:55								
	FINISH TIME: 4:25								
150  QC	QC3- Inspect Part Finish	0.00				9	0	M 11/4/12	
Quality Control	Memo	0.00							

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Monday, February 07, 2011 10:52:58 AM

Page 1

Work Order ID: 66127



Parent Item: D3500-1



Parent Item Name: Saddle

Start Date: 2/8/2011

Required Date: 2/22/2011

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP Rev:A New Issue 06-06-15 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6102-013  Saddle Billet		Manufactured	No			100	Each	20.0000	1	12		2/10/11	

Location

Loc Qty

Loc Code

MAT43

20

~~59467~~

~~30~~

~~60713~~

~~80~~

~~61300~~

~~10~~

64278

8

62010

1

0

0

0

0

8

1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

<b>DART AEROSPACE LTD</b>				<b>Work Order:</b> 66127	
<b>Description:</b> Saddle				<b>Part Number:</b> D3500-1	
<b>Inspection Dwg:</b> D3500				<b>Rev:</b> C	
				<b>Page 1 of 1</b>	

				<b>Recorded Actual Dimensions</b>					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	By	Date
A	0.483	0.490		.485	.485	.485	.485		
B	1.175	1.185		1.180	1.180	1.180	1.180		
C	3.145	3.155		3.150	3.150	3.150	3.150		
D	1.175	1.185		1.180	1.180	1.180	1.180		
E	0.365	0.385		.376	.376	.376	.376		
F	0.490	0.510		.498	.499	.498	.499		
H									
(Note: Dimension I is 0.015" over flange)									
I	R1.575	R1.595		1.590	1.588	1.588	1.588		
J	0.240	0.260		.245	.248	.248	.247		
K	0.490	0.510		.500	.500	.500	.500		
L	3.590	3.650		3.620	3.620	3.620	3.620		
M	0.315	0.322		.316	.316	.316	.316		
N	0.256	0.262		.258	.258	.258	.258		
O	6.500	6.520		6.510	6.510	6.510	6.510		
P	5.990	6.010		6.000	6.000	6.000	6.000		
Q	2.820	2.830		2.825	2.825	2.825	2.825		
R	2.495	2.505		2.500	2.500	2.500	2.500		
S	2.245	2.255		2.250	2.250	2.250	2.250		
T	1.120	1.130		1.125	1.125	1.125	1.125		
U	0.540	0.560		.549	.550	.550	.550		
V	0.793	0.803		.798	.798	.798	.798		
W	R.240	R.260		.250	.250	.250	.250		
X	0.040	0.060		.050	.050	.050	.050		
Y	0.100	0.120		.105	.105	.105	.105		
AA	R1.125	R1.145		1.136	1.135	1.135	1.135		
AB	R.490	R.510		.500	.500	.500	.500		
AC	0.615	0.635		.635	.635	.635	.635		
AD	0.240	0.260		.252	.253	.252	.252		
AE	1.810	1.830		1.822	1.823	1.822	1.820		
AF	0.240	0.260		.250	.249	.250	.250		
AG	0.140	0.160		.147	.150	.150	.150		
AH	0.140	0.160		.152	.153	.154	.152		
AI	0.140	0.160		.156	.155	.155	.154		
<b>Accept/Reject</b>									

<b>Measured by:</b>	JA
<b>Date:</b>	11/04/11

<b>Audited by:</b>	H.A
<b>Date:</b>	11/04/12

Rev	Date	Change	Revised by	Approved
A	06.09.26	New Issue	KJ/EC	
B	08.10.07	Dimension H removed	KJ/DD	
C	08.11.28	Dimension 'M' revised	KJ/EC	
D	11.01.17	Note added to Dim I	KJ	JA

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



<b>DART AEROSPACE LTD</b>		<b>Work Order:</b> 66/27	
<b>Description:</b> Saddle		<b>Part Number:</b> D3500-1	
<b>Inspection Dwg:</b> D3500		<b>Rev:</b> C	
		<b>Page 1 of 1</b>	

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	45	46	47	48	By	Date
A	0.483	0.490		.485	.485	.485	.485		
B	1.175	1.185		1.180	1.180	1.180	1.180		
C	3.145	3.155		3.150	3.150	3.150	3.150		
D	1.175	1.185		1.180	1.180	1.180	1.180		
E	0.365	0.385		.376	.376	.376	.376		
F	0.490	0.510		.498	.500	.499	.500		
H									
(Note: Dimension I is 0.015" over flange)									
I	R1.575	R1.595		1.588	1.588	1.588	1.588		
J	0.240	0.260		.247	.249	.247	.246		
K	0.490	0.510		.499	.500	.500	.499		
L	3.590	3.650		3.620	3.620	3.620	3.620		
M	0.315	0.322		.316	.316	.316	.316		
N	0.256	0.262		.258	.258	.258	.258		
O	6.500	6.520		6.510	6.510	6.510	6.510		
P	5.990	6.010		6.000	6.000	6.000	6.000		
Q	2.820	2.830		2.825	2.825	2.825	2.825		
R	2.495	2.505		2.500	2.500	2.500	2.500		
S	2.245	2.255		2.250	2.250	2.250	2.250		
T	1.120	1.130		1.125	1.125	1.125	1.125		
U	0.540	0.560		.550	.550	.550	.550		
V	0.793	0.803		.798	.798	.798	.798		
W	R.240	R.260		.250	.250	.250	.250		
X	0.040	0.060		.050	.050	.050	.050		
Y	0.100	0.120		.105	.105	.105	.105		
AA	R1.125	R1.145		1.135	1.135	1.135	1.135		
AB	R.490	R.510		.500	.500	.500	.500		
AC	0.615	0.635		.635	.635	.635	.635		
AD	0.240	0.260		.251	.251	.252	.252		
AE	1.810	1.830		1.819	1.819	1.819	1.820		
AF	0.240	0.260		.249	.250	.250	.249		
AG	0.140	0.160		.150	.150	.150	.150		
AH	0.140	0.160		.153	.152	.154	.153		
AI	0.140	0.160		.155	.154	.155	.153		
Accept/Reject									

Measured by:	YL
Date:	11/04/11

Audited by:	H.A
Date:	11/04/12

Rev	Date	Change	Revised by	Approved
A	06.09.26	New Issue	KJ/EC	
B	08.10.07	Dimension H removed	KJ/DD	
C	08.11.28	Dimension 'M' revised	KJ/EC	
D	11.01.17	Note added to Dim I	KJ	



<b>DART AEROSPACE LTD</b>		<b>Work Order:</b> 66127	
<b>Description:</b> Saddle		<b>Part Number:</b> D3500-1	
<b>Inspection Dwg:</b> D3500		<b>Rev:</b> C	
		<b>Page 1 of 1</b>	

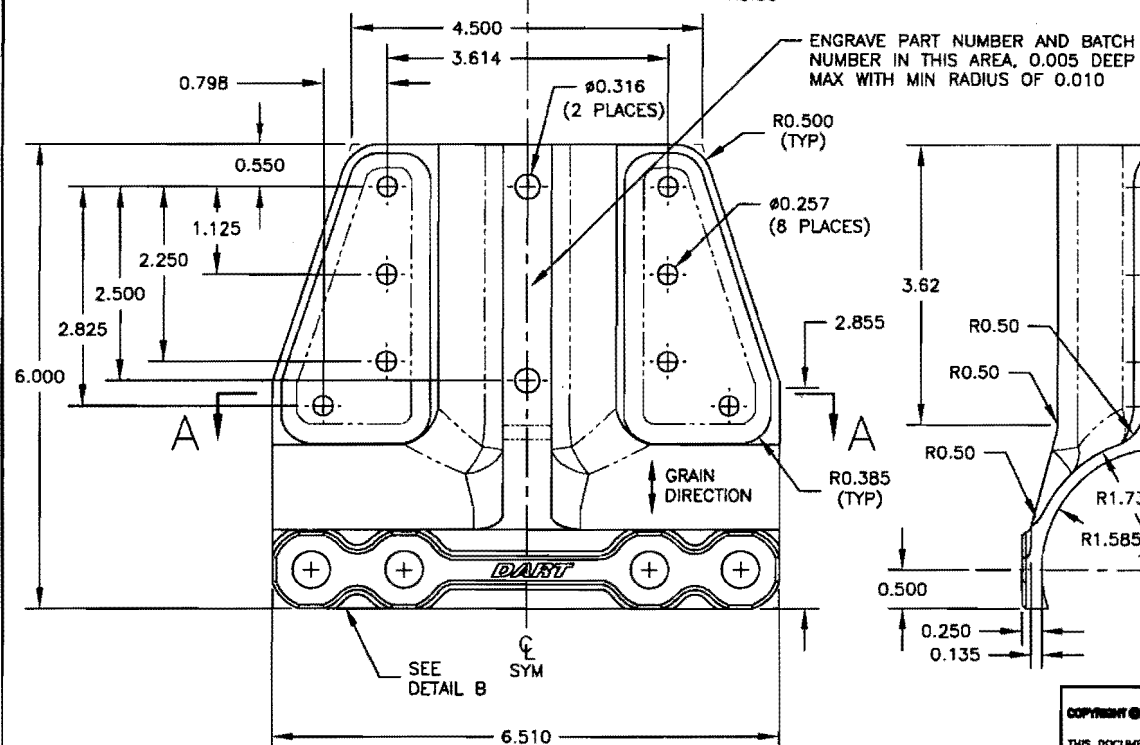
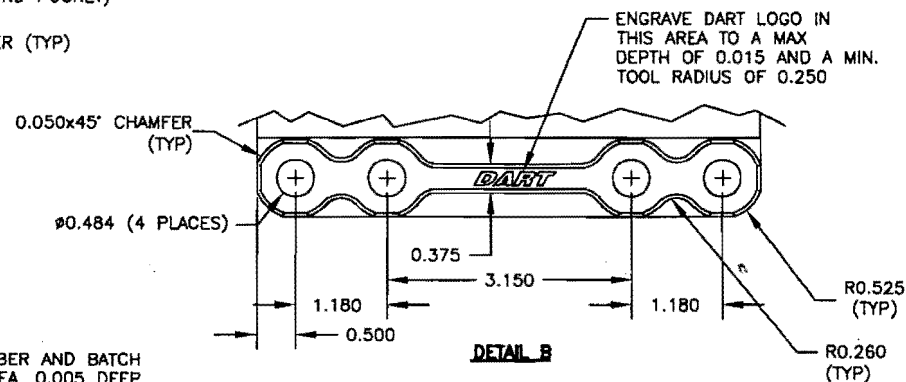
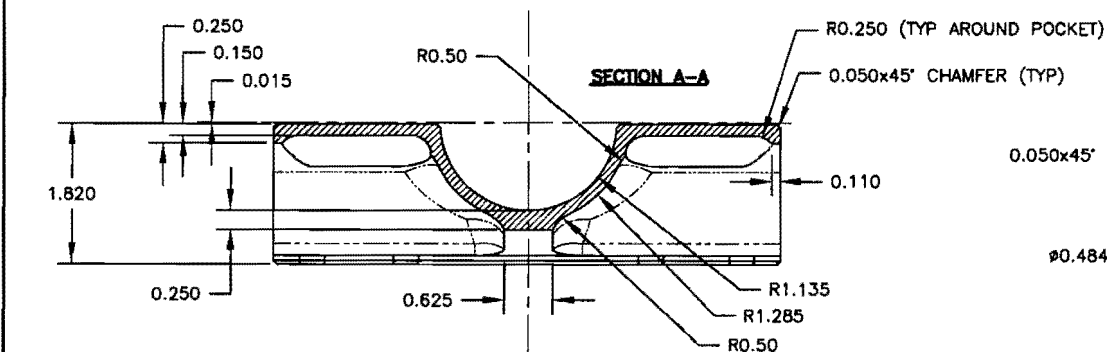
				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	By	Date
A	0.483	0.490		.485					
B	1.175	1.185		1.180					
C	3.145	3.155		3.150					
D	1.175	1.185		1.180					
E	0.365	0.385		.376					
F	0.490	0.510		.500					
H									
(Note: Dimension I is 0.015" over flange)									
I	R1.575	R1.595		1.588					
J	0.240	0.260		.247					
K	0.490	0.510		.500					
L	3.590	3.650		3.620					
M	0.315	0.322		.316					
N	0.256	0.282		.258					
O	6.500	6.520		6.510					
P	5.990	6.010		6.000					
Q	2.820	2.830		2.825					
R	2.495	2.505		2.500					
S	2.245	2.255		2.250					
T	1.120	1.130		1.125					
U	0.540	0.560		.550					
V	0.793	0.803		.798					
W	R.240	R.260		.250					
X	0.040	0.060		.050					
Y	0.100	0.120		.105					
AA	R1.125	R1.145		1.135					
AB	R.490	R.510		.500					
AC	0.615	0.635		.635					
AD	0.240	0.260		.251					
AE	1.810	1.830		1.820					
AF	0.240	0.260		.250					
AG	0.140	0.160		.150					
AH	0.140	0.160		.153					
AI	0.140	0.160		.153					
Accept/Reject									

<b>Measured by:</b> J
<b>Date:</b> 11/04/11

<b>Audited by:</b> B.A
<b>Date:</b> 11/04/12

Rev	Date	Change	Revised by	Approved
A	06.09.26	New Issue	KJ/EC	
B	08.10.07	Dimension H removed	KJ/DD	
C	08.11.28	Dimension 'M' revised	KJ/EC	
D	11.01.17	Note added to Dim I	KJ	





# **D3500-1 SADDLE**

- 1) MATERIAL: 6061-T6/T651 (QQ-A-200/8 OR QQ-A-250/11) (MAKE FROM D6102-013 SADDLE BILLET, 6061)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1, POWDER COAT GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
- 3) BREAK ALL SHARP EDGES 0.010 TO 0.020
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES

**RELEASED**

06.08.15

C	06.06.30	MAT'L NOW 6061-T6/T651
B	06.05.29	CHANGE DIMS; MAT'L NOW 7075-T7351
A	06.04.18	NEW ISSUE
DESIGN	9P	DRAWN BY PH
CHECKED	#	APPROVED #
DATE	06.06.30	TITLE SADDLE
DRAWING NO. D3500		REV. C SHEET 1 OF 1
SCALE		2:3

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**DART** DART AEROSPACE LTD.  
WINDSOR, ONTARIO, CANADA

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries